

GENERAL URTIS E. LeMAY

CHIEF OF STAFF, USAF

MEMORANDUM TO: General LeMay

DATE 31 Jul 61

Recommend you read the attached summary of Secretary Connally's and Admiral Burke's testimony before the Stennis Subcommittee.

I have asked Plans to review the verbatim testimony for possible future use in JCS and Congressional actions.

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Gen. L. May 94

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HEARING RESUME

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28 July 1961
(2150 hours)

MEMORANDUM FOR RECORD

SUBJECT: Hearings by the Preparedness Investigating Subcommittee, Senate Committee on Armed Services, on DOD Ballistic Missile Program

1. The Preparedness Investigating Subcommittee, Senate Committee on Armed Services, continued their hearings on the DOD ballistic missile program at 0930 hours, July 28, 1961, by calling Secretary Connally and Admiral Burke. The hearings were conducted in closed session and attended by the following Members:

<u>Democrats</u>	<u>Republicans</u>
Senator Stennis, Chairman	Senator Saltonstall
Senator Symington	Senator Smith (Me.)
Senator Jackson	
Senator Cannon (Member of full Committee)	
Senator Thurmond (Member of full Committee)	

2. Secretary Connally and Admiral Burke commenced their testimony by reading into the record prepared statements which generally outlined the following:

Secretary Connally referred to a previous statement by Mr. McNamara to the effect that "the major concern in reevaluating this country's general war position was to reduce our dependence on deterrent forces which are highly vulnerable to ballistic missile attack or which rely for their survival on a hair-trigger response. Greater emphasis was placed on the kind of forces which could ride out a massive nuclear attack and be applied with deliberation under the complete control of constituted authority." Using this statement as a focal point of his speech, Secretary Connally stressed the flexibility of the Naval force which provides stability and capability of a wide range of response by virtue of "their great survivability and controllability." He noted that the POLARIS was ideally suited to this concept in its ability to survive an enemy attack and respond instantaneously or in a more deliberate fashion as in a second strike situation. He mentioned the ability of the POLARIS to be retargeted readily and accurately, its freedom from the catastrophic conditions existing on land if an enemy strikes first, its invulnerability to bacteriological or chemical warfare, or sabotage when at sea. He noted that it did not depend on missile warning systems, AICBMs, or other "Fortress America type defensive measures for its survival or effectiveness." With regard to the availability of the POLARIS system, he testified that six were at sea with four completely operational. It was his expectation that the 29 now authorized will be deployed by the summer of '65. In expanding on survivability, the Secretary stated "there is not the remotest sign that any of these submarines (those now on station) have been detected on their patrol stations." In his final remarks the Secretary dealt briefly with the attack carrier strike force and the capability of

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the manned aircraft associated therewith. He also stated that his enthusiasm with the unique deterrent power of the POLARIS system did not imply that it should not be complemented and integrated with other strategic missile systems.

Admiral Burke's statement again dealt primarily with the POLARIS system with more detail on the progress to date, method of employment, force level considerations, and the current readiness. In these connections he pointed out the same unique capabilities of the system and emphasized its virtual invulnerability to enemy action. The apparent flexibility of being capable of launching the weapons immediately or withholding them for second strike capability was stressed along with the ability for rapid retargeting. Admiral Burke supported the build-up to 45 submarines on the basis of the responsibility of targeting 200 targets identified primarily as Soviet military installations. In discussing the attack carrier force, he emphasized their capability for both conventional and nuclear attack.

3. In the questioning that followed, the Committee explored in more detail the past record, present status and capability, and future plans for the POLARIS missile system. As a lesser issue, Navy witnesses were asked to comment on the Navy's conventional war capabilities and the need for additional funds to forestall the growing obsolescence of the fleet. As could be expected, both witnesses expressed their complete confidence in the capability of the POLARIS system and stressed its unique characteristics, invulnerability, and flexibility of response. Specific testimony developed on the POLARIS was as follows:

a. Program Objective

Admiral Burke developed the Navy objective of 45 POLARIS submarines on the basis of present information concerning Soviet targets. The Navy's position was to the effect that there were 200 priority targets within the Soviet Union that should be assigned to the POLARIS. Considering an on station force of 55% of the POLARIS fleet and the need for assigning two missiles per target to achieve a 90% assurance factor, this would require a fleet of 45 submarines. In other words, a 45 submarine force would give 25 boats on station each with 16 missiles for a total of 400 missiles. Under questioning from Senator Cannon and Mr. Kendall, it was admitted that the assignment of the 200 top priority targets to the Navy POLARIS was actually Navy planning rather than an approved Joint Staff position. It was estimated by Secretary Connally that this force would cost approximately \$14 billion, including developing and procuring the hardware and providing necessary support elements.

b. Status of the Program

Mr. Kendall asked Admiral Burke what, in his opinion, was the current reliability of the POLARIS and the operational test results to date. Admiral Burke replied that the POLARIS missile had a 60% reliability with a CEP of 1.5 n.m. He expressed hope that additional experience and improvements would give a 90% reliability. He stated that in the 26 operational tests to date, those fired from a submarine, 13 had been successful. Secretary Connally remarked that of the 13 that failed, 5 had been due to

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mechanical conditions that had been corrected and that these same tests today would have given 18 successes out of 26. Admiral Burke stated that these tests were fully operational tests and that the submarine was moving at a speed of approximately 2 knots at the time of the firing. No testimony was developed as to the participation of contractor personnel nor details on what was considered to be a fully operational test. Admiral Burke stated that there are presently two submarines on station and that it is expected that three will be on station in the latter part of this year. In this respect, he observed that the Navy experience showed that 55% of the POLARIS force could be maintained on station with 30% available within a short period of time as an uncommitted reserve force. The remaining 15% would be in port undergoing overhaul and available within a relatively short period of time. With regard to the 30% uncommitted reserves, these were identified as subs just leaving their stations, located at a tender, or otherwise employed but presumably not in dry dock. He estimated an ability of a few hours to a period of days to get this force on station. He pointed out, however, that these submarines could be put out to sea on short notice thereby decreasing their vulnerability. At the same time he admitted that both this group and those in overhaul were vulnerable to attack.

c. POLARIS A-3

In reply to questions from Mr. Kendall, Admiral Burke stated that the A-3 missile was needed both from the standpoint of target coverage and also to provide a greater area for deployment. In his opinion, the increased capability of the A-3 missile would enable the Navy to launch an attack from many directions with shorter lines of communications and increased invulnerability. At the same time he admitted that the A-2 would provide total target coverage and in doing so conceded that the A-3 was needed primarily to give greater flexibility in deployment. He noted that the development job for the A-3 was extremely difficult and that it was not possible to accelerate its scheduled operational date. When asked about the originally specified 1500 n.m. range for the POLARIS, Admiral Burke testified that the two year acceleration in the operational date required the initial deployment of the A-1 which has a maximum range of 1200 n.m. It was admitted that the introduction of the A-3 into the force would require lengthening of the launch tube and some modifications to the earlier submarines.

d. Invulnerability - ASW

These issues are being discussed under one heading as each seem to affect the Committee's reaction to the other. Senator Symington pointed out that the weapon systems now under development are capable of traveling many times the speed of sound and questioned the ultimate capability of a POLARIS submarine traveling at approximately 30 miles per hour. Under these circumstances, he felt that the POLARIS system would be desirable only so long as it could not be detected. Admiral Burke replied, categorically, that the POLARIS submarine could not be detected. He emphasized that the Navy had investigated virtually every possibility including SONAR, radar, and infrared, without success. He foresaw little

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chance that the POLARIS could be detected in the foreseeable future and could point to no R&D techniques having any promise in this area. Admiral Burke went on to state that even if the POLARIS could be detected it would still be better than any fixed system due to its mobility. On the other hand, in answer to other Committee questions, Admiral Burke stated that only 25% of the enemy submarines could penetrate our ASW net. Mr. Kendall asked if this did not imply a similar capability for the Soviets. Admiral Burke replied that he was confident that they did not have this ability and that there was apparently some intelligence information to confirm his opinion. With regard to the ASW program, Senator Jackson asked if sufficient funds were available to provide adequate coverage. Both Admiral Burke and Secretary Connally admitted that additional funding could be used in this area and that funding the POLARIS program had tended to reduce the resources available in other areas of Naval responsibility.

e. Communications

As in the case of the Air Force testimony, the Subcommittee was very interested in the integrity of the Navy communications system. Admiral Burke testified that the Navy had four separate methods of transmitting messages to the submarine on station. He noted that in recent patrol these methods had been tested and that in no case had any of the submarines failed to receive a transmission. In reply to questions from Senator Cannon and others regarding the capability of the submarine to acknowledge or authenticate orders received, Admiral Burke stated that the submarine commanders are under strict orders not to transmit. He pointed out that transmissions from the submarine would permit detection and that as a result of the test to date the Navy was confident that messages would be received. Undoubtedly this matter will receive considerable emphasis with Navy witnesses to follow.

4. In addition to the testimony on the POLARIS system, other issues were developed with the witnesses as follows:

a. Conventional Force: In reply to questions from the Committee, Admiral Burke testified that the replacement of obsolescent equipment must be accelerated if the Navy was to maintain its present capability. He asked that the present annual funding of 1.7 billion dollars for this purpose be increased to 2.9 billion dollars. This latter amount would permit the introduction of 50 new ships per year. In this same area Admiral Burke pointed out that there was now and would continue to be a definite need for manned aircraft. He asked for continued support in this area so that the Navy could maintain a balanced force.

b. Nuclear Test: In reply to questions from Senator Thurmond and Senator Jackson, Admiral Burke stated that, in his opinion, the United States should resume nuclear testing. He testified that much could be gained in improving our military capability through testing and he agreed that there was no certain knowledge that the Soviets were not testing at the present time. With regard to the neutron bomb, Admiral Burke felt that this would be an extremely effective weapon.

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5. There were certain matters developed of direct interest to the Air Force and involving Air Force programs as follows:

a. Mobile MINUTEMAN: Senator Thurmond asked if the apparent vulnerability of fixed sites to Soviet attack did not increase the importance of mobile deployment utilizing railroads, trucks, etc. Admiral Burke, in his reply, stated that he assumed the Senator was referring to the mobile MINUTEMAN. It was his opinion that the Air Force was having some technical difficulties with this system and had decided to proceed with the fixed MINUTEMAN before undertaking the mobile system. He felt that there was some question on the ability of the mobile MINUTEMAN to retarget. In the final analysis, however, Admiral Burke agreed that a mobile system was desirable and needed.

b. Military Space: Senator Stennis asked both Admiral Burke and Secretary Connally if they felt any concern that the Soviets would develop a military space capability before this country. Secretary Connally replied that while this was a possibility, it did not alarm or concern him at this time. His rationale was based on the capability of the ICBM and his feeling that there was no reason for the Soviets to take a more complex and expensive approach to strategic delivery. Admiral Burke added that, in his opinion, the ICBM force provided the most effective delivery system. He went on to add that he could see no real purpose for manned space vehicles since man's function would be only to read the instruments and this could better be performed by electronic and telemetry equipment. Senator Stennis replied that perhaps this was the answer, i.e., the ICBM force representing the most effective delivery means, but that he was still concerned over a potential Soviet threat and domination from space.

c. Fixed Missile Bases: Throughout the testimony continued reference was made to the vulnerability of fixed missile bases and the presumption that they could not survive in the years to come. Admiral Burke, in testifying that the POLARIS missile would be targeted against military targets, some of which were presumably hard, indicated that there was some disagreement on the survivability of hardened sites. He referred to ground shock problems and the fact that such parts as the heavy silo doors could be jammed by the impact of nuclear weapons. His testimony therefore, was related not only to the capability of the POLARIS missile against hard targets but also the ability of our hardened and dispersed missile sites to ride out enemy attack and still function.

6. The Navy presentation will continue with the testimony of Admiral Raborn and Admiral Hayward and their supporting witnesses. No time has been fixed for these sessions although the Committee is hoping to resume sometime next week. It is understood that Secretary McNamara and General Lemnitzer are tentatively scheduled for August 8 or 9, 1961.

Joseph E. Boland
For and in the absence of
JAMES O. MCKEE
Colonel, USAF
Chief, Investigations Branch
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Office of Legislative Liaison

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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON 25, D. C.
30 July 1958

CNO PERSONAL LETTER NO. 5

TO: Retired Flag Officers

SUBJECT: Pertinent Information

SUMMARY OF MAJOR STRATEGIC CONSIDERATIONS FOR THE 1960-70 ERA

The loss of the U. S. monopoly on high yield nuclear weapons, coupled with Russian advance in long-range delivery systems, has created a new situation in which the classical goals and concepts of military power require modification.

Military superiority in unlimited war no longer connotes ability to "win" -- nobody wins a suicide pact. Thus all-out war is obsolete as an instrument of national policy.

Nevertheless, such a war can occur, either through an irrational act, or through rational miscalculation. This possibility preempts the first consideration of all who are concerned with the survival of free societies.

The 'solution' that has received most widespread attention is that of disarmament. In the past, general disarmament has never promised the world anything better than an unstable power vacuum. From the apparent Soviet eagerness to embrace it, disarmament now seems to represent World Communism's chosen quickest route to its standing objective, world domination.

The West has urgent need to discover a less-illusory solution, which accepts the facts of Soviet capability and hostile intent, yet leads to a mutual deterrence of all-out war sufficiently stable to survive occasional periods of tension. Such a solution must involve a posture of strength, if we are to concede no political objectives. Yet common sense requires that it not commit us to a never-ending arms race. Is it possible, consistent with this requirement, to stabilize and strengthen nuclear deterrence against the possibility of Soviet miscalculation by unilateral action on our part? If so, what should that action be?

To answer these questions we must analyze some of the dangers and weaknesses of our present position. The salient features of our current strategic retaliatory forces are (1) their substantial size, (2) their vulnerability.

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There are good historical reasons for both features. In the pre-ICBM era it made some sense to provide ourselves with generous forces (additional to the modest forces needed to deter all-out attack by threatening major Soviet cities) specifically for disarming our opponent, or for 'blunting' his attack, by striking at his known airfields. Also, while we held an atomic monopoly we had no cause for concern about our own vulnerability.

But the coming advent of Russian nuclear-warhead ICBM's, sited in locations we can only guess at, will render the U. S. 'blunting' or disarming mission impossible and hence meaningless. Unfortunately this does not work both ways, since we cannot keep secret the locations of our strategic manned bomber bases and first-generation ICBM sites. The vulnerability of these makes it entirely feasible for the Russians to plan a surprise 'blunting' or disarming mission against us.

As a result we shall soon find ourselves in the new uncomfortable position of relying largely on the size of our striking forces to offset their vulnerability.

Such a state of affairs is obviously a prescription for an arms race, and also an invitation to the enemy for preventive-war adventurism. For how can we be sure that his calculation of our residual strength after his attack will agree with ours well enough to deter him? The possibility of all-out war through miscalculation is all too evident.

The trouble here is rooted in the vulnerability of our deterrent forces to surprise attack. A first order of business, therefore, is to provide ourselves with striking power as nearly secure against surprise as possible. When this has been done, the invitation to preventive war will be withdrawn. The need will vanish for huge U. S. strategic forces, either to offset vulnerability or to disarm the opponent (shown above to be a largely futile objective in the coming era).

As perhaps the most important pay-off from making our future strategic forces proof against surprise attack, we shall also gain time to think in periods of tension. The commander of a vulnerable retaliatory system has only minutes from the first radar indication of a possible missile attack to the time when all his installations may be obliterated. The indication may be false -- but every minute he delays in trying to evaluate it increases the chance that he may never be able to fire. But if our retaliatory forces are invulnerable, retaliation will lose this night-marish semi-automatic, 'hair-trigger' quality. The constant pressure to strike first in order to avoid being disarmed, the most dangerous feature of vulnerable striking systems, will be eliminated.

The flexibility of our retaliatory strategy will also be improved, in that we can elect to retaliate gradually instead of instantly. We can then apply political coercion, if we like, to gain national objectives more advantageous than simple revenge.

Moreover, as increasing numbers of nations come into possession of nuclear weapons, the ability to withhold retaliation until we are sure of the identity of our opponent will, in the possible event of anonymous attack, reduce the chance of mistaken retaliation. Such a chance will always exist if we must retaliate 'instantly', or else risk not being able to retaliate at all.

Security of our strategic forces against surprise attack is for all these reasons a necessary objective; but we must be careful in the way we go about seeking it. There are two ways, one of which can do as much harm as good.

The "fortress concept" of invulnerability to a pre-supposed level of attack involves 'hardening' and active defense of fixed installations; that is to say, burying them in concrete deep under ground, and surrounding them with anti-missile batteries, both at tremendous expense. This concept merely promotes an arms race. It challenges the enemy in an area (endless mass-production of higher-yield, more-accurate missiles) where he is ready and able to respond impressively. Fortress-busting is always possible, since any fixed defenses, including all foreseeable anti-ICBM defenses, can be overwhelmed by numbers. Once embarked on this course, we will be committed to build installations and defenses faster than the enemy can build missiles to knock them out.

By contrast, security against surprise, when achieved through mobility and concealment, discourages an arms race. This concept challenges the enemy in an area (military intelligence) where he can clearly be frustrated, e.g., by submarine or mobile land-based missile systems. Numbers of missiles will avail the enemy nothing, if he does not know the location of his target. We in effect take an initiative which he can overcome only by maintaining hour-to-hour fine-comb surveillance of all our land areas and the vast oceans.

To the extent that we rely on the fortress concept to achieve security against surprise, we commit ourselves to an eternal, strength-sapping race in which the Soviets have a head start. But we can get off the arms-race treadmill at the start. We can decisively lessen the chance of all-out war through enemy miscalculation. We can do so by adopting for our next-generation retaliatory systems not merely the broad requirement of 'invulnerability', but through mobility and concealment.

To avoid needless the provocative over-inflation of our strategic forces, their size should be set by an objective of generous adequacy for deterrence alone (i.e., for an ability to destroy major urban areas), not by the false goal of adequacy for "winning."

When this has been done, Soviet recognition of the resulting thermonuclear stalemate can be expected to induce them to vent their aggressions only at lower levels of conflict than all-out war. As a result U. S. military capabilities for wars of limited objectives and means (in the Indo-China, Suez, or Korean pattern) will become more rather than less, essential in the age of absolute weapons — if we are to avoid being "nibbled to death." The sizeable reductions in strategic forces permitted by their security against attack, if we elect to procure secure forces of the type discussed above, should in time free funds to build up these badly-needed capabilities for deterring limited wars, and also for competing with the Soviets in other areas, such as political and economic warfare, space travel, etc., where we now offer them a less-than-maximum challenge.

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